

5204166



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D6101-001
Job Sheet 198428



Part No: D6101-001

Job Qty: 20 pcs

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/29/19

Job Tracking No:

Due Date: 8/20/19

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV B

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Sign-off
							Workcenter / Supplier Lead Time	
100	Purchasing	20 pcs	8/20/19	8/20/19	0.00	0.00	Purchasing - 1	AI 19/08/08
							Purchasing - 2	
							Purchasing - 3	
110	Packaging 2-1 - Receive - B4B	20 pcs	8/20/19	8/20/19	0.00	0.00	Packaging 2 - 1 - B4B	AI 19/08/08
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B	
							Packaging 2 - 7 - B4B	
							Packaging 2 - 8 - B4B	
							Packaging 2 - 9 - B4B	
							Packaging 2 - 10 - B4B	
							Packaging 2 - 11 - B4B	
							Packaging 2 - 12 - B4B	
							Packaging 2 - 13 - B4B	
							Packaging 2 - 14 - B4B	
							Packaging 2 - 15 - B4B	
							Packaging 2 - 16 - B4B	
							Packaging 2 - 17 - B4B	
							Packaging 2 - 18 - B4B	
							Packaging 2 - 19 - B4B	
							Packaging 2 - 20 - B4B	
							Packaging 2 - 21 - B4B	
							Packaging 2 - 22 - B4B	
							Packaging 2 - 23 - B4B	
							Packaging 2 - 24 - B4B	
							Packaging 2 - 25 - B4B	
							Packaging 2 - 26 - B4B	
							Packaging 2 - 27 - B4B	
							Packaging 2 - 28 - B4B	

Plex 7/29/19 9:53 AM Dart.Lavoie.Chanta

120	QC 18	20 pcs	8/20/19	0.00 0.00	Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
120	QC 18	20 pcs	8/20/19	0.00 0.00	QC 18 - 12	
					QC 18 - 14	
					QC 18 - 22	
					QC 18 - 25	
					QC 18 - 48	
					QC 18 - 58	DAS
					QC 18 - 61	61
					QC 18 - 9	9-89
120	QC 18	20 pcs	8/20/19	0.00 0.00	QC 18 - 81	
					Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
130	Packaging 3-1 - Stock - B4B	20 pcs	8/20/19	0.00 0.00	Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
130	Packaging 3-1 - Stock - B4B	20 pcs	8/20/19	0.00 0.00	Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
130	Packaging 3-1 - Stock - B4B	20 pcs	8/20/19	0.00 0.00	Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
130	Packaging 3-1 - Stock - B4B	20 pcs	8/20/19	0.00 0.00	Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
					QC 21 - SA - 21	DAS
					QC 21 - SA - 70	21
					QC 21 - SA - 53	9-89
140	QC 21 - SA	20 pcs	8/20/19	0.00 0.00		AUG 13 2019

Part Op **100** - Issue P/O: _____ a)Description: Alluminum billet b) 6.00" x 6.250" x 2.00" thick c) Tolerance on length
 Descriptions: are +0.030"/-0.000"±/-0.008" d) Grain direction along 6.00" length e) Material: 7075-T7351 (QQ-A-250/12)
110 - (Receive & Inspect for Damage & Mat'l Certs), Ensure material certification is attached

- 120 - Ensure Material certification comply to Dwg D
130 - (Identify as per dwg & Stock Location: _____), LOCATION: MAT042
140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-001P	7075-T7351 2X6X6.25	20 pcs (1 ea)	100-Purchasing	5204165

Job Allocations

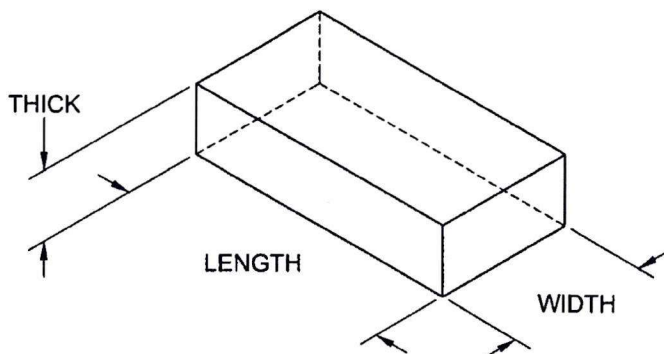
Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6101-001P	20	0	0

Part Specifications

Specifications could not be found.

Plex 7/29/19 9:53 AM Dart.Lavoie.Chantal

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

B

RELEASED
09/07/15/WB

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB044138



Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: POHB044138

PO Date: 7/29/19

Due Date: 8/23/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: 613-623-5200 Ext: 242
Fax: 613-632-1053
clavoie@dartaero.com

E-MAILED
JUL 29 2019

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	198428	D6101-001P	72746	7075-T7351 2X6X6.25 AS PER DWG D6101 REV. B SIZE: 6.00" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 6.00" LENGHT MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	8/23/19	20 pcs	0 pcs	20 pcs	\$29.57/pcs	\$591.40

Grand Total: \$591.40

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable). No Raw Metals from China or Soviet Bloc Countries

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program.

A049 supplier awareness.

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/29/19 12:44 PM Dart.Lavoie.Chantal

**Castle Metals®**

A. M. Castle & Co.

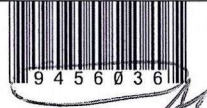
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:3964625

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms		Carrier		BOL No	
07-AUG-19	ORIGIN	Prepaid		LOCAL_FLEET		3964625-4	

Shipment Details	Final Destination Branch - TOR
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Order No	Line No	Item No	Description				
5555375	1	72746	2.0000.PL.7075.T7351.ALUMINUM.GRAIN TO RUN ALON 6.0000 IN.6.2500.6.0000 SPECIFICATIONS: AMS-QQ-A-250/12				
Purchase Order No		Part Number		Ordered Qty		Invoice Qty	
POHB044138		YOUR ITEM NUMBER: D6101-001		20.00 PCS		20.00 PCS	
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
122837221	CONSTELLIUM ROLLED PRODUCTS			20	6.2500	6.0000	154.8320

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.			
Reviewed by Authorized Castle Metals Representative:		Aug 07 2019	Date: 

Date Printed: 07-AUG-2019 04:19:37 PM





Constellium Rolled Products Ravenswood, LLC
PO BOX 68
RAVENSWOOD, WV 26164

KEEP MATERIAL DRY
PACKING LIST

SHIP TO		DELIVERY NUMBER		RECEIVING HOURS MONDAY THRU FRIDAY 9 AM TO 2:30 PM, CALL AT MINIMUM 24 HR PRIOR TO ARRIVAL FOR APPT. 316-522-5900.				
A M CASTLE CO 3050 SO HYDRAULIC WICHITA, KS		110777239						
		SHIPMENT INFO.						
		07/09/2019 07:50:00						
CUSTOMER PO NO.		CUSTOMER PART NO.		ORIGINAL PROMISE				
503663		752237		07/19/2019				
ITEM DESCRIPTION		ORDER NO.		MAIN CUSTOMER SPECIFICATION				
SPEC PLATE, SAWED MILL FINISH		274033		AMS 4078K				
ALLOY	CLAD	TEMPER	GAUGE	WIDTH	LENGTH	GOVERNMENT CONTRACT NO.		
7075		T7351	2.00000 IN 50.80 MM	48.50000 IN 1,232 MM	144.50000 IN 3,670 MM			
TICKET NO.	LOC	LOT NO.	PARENT LOT	PIECES	GROSS WT.	TARE WT.	NET WT.	SERIAL NUMBERS
1002095538	A24M	9456036		000002	2,940.000 LB	90.000 LB	2,850.000 LB	
1002095539	A25W	9456036		000001	1,515.000 LB	90.000 LB	1,425.000 LB	
1002095576	A24M	9456037		000002	2,930.000 LB	90.000 LB	2,840.000 LB	
1002095577	A24M	9456037		000001	1,510.000 LB	90.000 LB	1,420.000 LB	
SOURCE INSPECTION N AMC CA-15413A R 11								
COMMODITIES, TECHNOLOGY, OR SOFTWARE EXPORTED FROM U.S. IN ACCORDANCE TO EXPORT ADMIN REGULATIONS DIVERSION CONTRARY TO U.S. LAW PROHIBITED								
								
TOTAL SKIDS	TOTAL PIECES	TOTAL GROSS		TOTAL TARE	TOTAL NET WT.	PLANNED DATE	B/L NO.	
00004	000006	8895.000 LB		360.000 LB	8,535 LB	07/16/2019	120776	
ROUTE: 09US03						DEL.CARRIER:BESL		



Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS
67216
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110777239		4776		INCLUSION		Serial:20190708-0110777239		Pg 1of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 503663						Constellium ORDER NO. 274033					
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078K											
PART NUMBER 752237			B/L NUMBER 120776		DATE SHIPPED 07/09/2019						
WT. SHIPPED 8535.000 LB			NO. OF PIECES 000006		GOVT. CONTRACT NO.						

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.12" DEADZONE Class A
AMS QQ-A-250/12A
AMS-STD-2154C 2017 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CMMP025 REV V
CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
MMS 159T
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1002095538	1,425.000	646.369	9456036	01		
1002095538	1,425.000	646.369	9456036	02		
1002095539	1,425.000	646.369	9456036	03		
1002095576	1,420.000	644.101	9456037	01		
1002095576	1,420.000	644.101	9456037	02		
1002095577	1,420.000	644.101	9456037	03		

Lot: 9456036 (See test results below)

Tensile - Room Temperature (US)

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	73.7	74.2	63.3	63.9	12.0	12.0	





Constellium

Naacap
Materials Testing Laboratory

Constellium Rolled Products
Ravenswood, LLC

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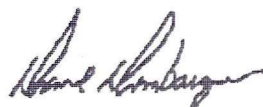
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A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS
67216
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110777239		4776		INCLUSION		Serial:20190708-0110777239		Pg 2of3																												
CUSTOMER PURCHASE ORDER NO. & ITEM 503663						Constellium ORDER NO. 274033		CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager																														
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ITEM ORDERED SPEC PLATE, SAWED MILL FINISH																																						
CUSTOMER SPECIFICATION AMS 4078K																																						
PART NUMBER 752237			B/L NUMBER 120776		DATE SHIPPED 07/09/2019																																	
WT. SHIPPED 8535.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.																																		
Tensile - Room Temperature (SI) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Ultimate (N/MM2)</th> <th colspan="2">Yield (N/MM2)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th></th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>508</td> <td>512</td> <td>436</td> <td>441</td> <td>12.0</td> <td>12.0</td> <td></td> </tr> </tbody> </table>														Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max		LT	02	508	512	436	441	12.0	12.0	
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report																														
Direction	Tests	Min	Max	Min	Max	Min	Max																															
LT	02	508	512	436	441	12.0	12.0																															
Conductivity % IACS MIN 40.1 MAX 40.7 % MS/M MIN 23.3 MAX 23.6																																						
Chemistry (Actual) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th></th> <th>SI</th> <th>FE</th> <th>CU</th> <th>MN</th> <th>MG</th> <th>CR</th> <th>ZN</th> <th>TI</th> <th>ZR</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>0.08</td> <td>0.13</td> <td>1.54</td> <td>0.03</td> <td>2.58</td> <td>0.21</td> <td>5.82</td> <td>0.03</td> <td>0.01</td> </tr> </tbody> </table>													SI	FE	CU	MN	MG	CR	ZN	TI	ZR	Core	0.08	0.13	1.54	0.03	2.58	0.21	5.82	0.03	0.01							
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR																													
Core	0.08	0.13	1.54	0.03	2.58	0.21	5.82	0.03	0.01																													
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																																						
All material contained in this lot was cast and manufactured in the USA																																						
Lot: 9456037 (See test results below) Tensile - Room Temperature (US) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Ultimate (KSI)</th> <th colspan="2">Yield (KSI)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th></th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>73.7</td> <td>73.9</td> <td>63.1</td> <td>63.7</td> <td>12.5</td> <td>12.5</td> <td></td> </tr> </tbody> </table>														Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max		LT	02	73.7	73.9	63.1	63.7	12.5	12.5	
		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report																														
Direction	Tests	Min	Max	Min	Max	Min	Max																															
LT	02	73.7	73.9	63.1	63.7	12.5	12.5																															



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 A M CASTLE CO
 3050 SO HYDRAULIC
 WICHITA KS
 67216
 US

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 A M CASTLE
 1420 KENSINGTON ROAD, SUITE 220
 OAK BROOK IL
 60523
 US

A M CASTLE		110777239		4776		INCLUSION		Serial:20190708-0110777239		Pg 3of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 503663						Constellium ORDER NO. 274033					
ALLOY 7075	CLAD	TEMPER T7351	GUAGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunberger - Laboratory Manager				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078K											
PART NUMBER 752237			B/L NUMBER 120776		DATE SHIPPED 07/09/2019						
WT. SHIPPED 8535.000 LB			NO. OF PIECES 000006		GOVT. CONTRACT NO.						

Tensile - Room Temperature (SI)

		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report	
Direction	Tests	Min	Max	Min	Max	Min	Max		
LT	02	508	510	435	439	12.5	12.5		

Conductivity % IACS MIN 39.8 MAX 40.5 % MS/M MIN 23.1 MAX 23.5

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.08	0.13	1.54	0.03	2.58	0.21	5.82	0.03	0.01

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

 QUALITY TEXTS:
 AMC CA-15413A R 11

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399. WHEN SMOOTH FATIGUE TESTED, TESTED PER ASTM E466.

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557

DUNS Number: 090570149; CAGE Code: 1YWV9

100% Type I (Immersion sonic) used when ultrasonic inspection performed.

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6101-001
 DATE: 19/08/18

PO / BATCH NO.: PO4B044138/
5204166

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 20x
 QUANTITY INSPECTED: 20x
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000"
 THICKNESS RECEIVED: 2.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	QA-A-250/12
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	HT: 9450036
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>9-89</u> DATE: <u>AUG 08 2019</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in